

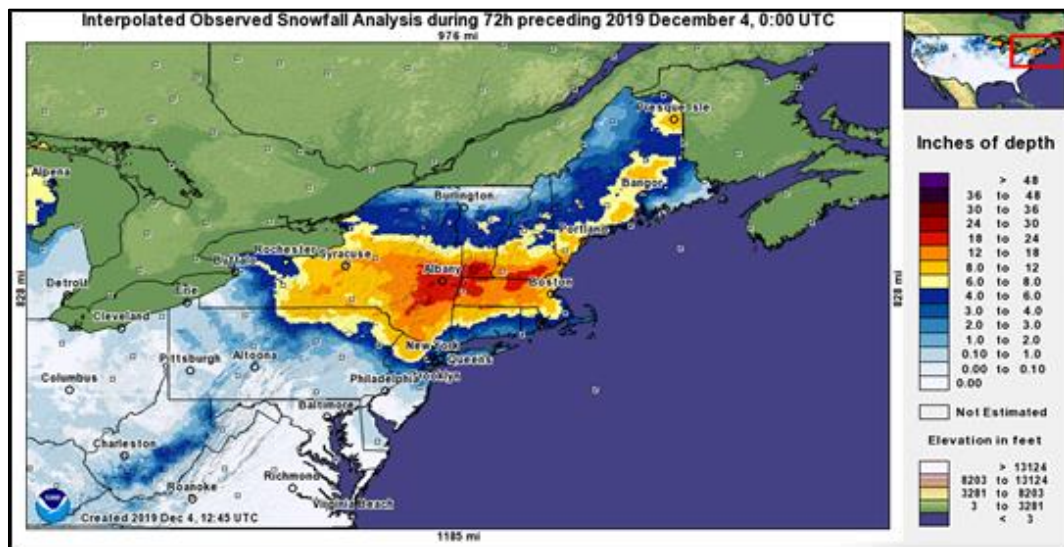
# Water and Climate Update

December 5, 2019

The Natural Resources Conservation Service produces this weekly report using data and products from the [National Water and Climate Center](#) and other agencies. The report focuses on seasonal snowpack, precipitation, temperature, and drought conditions in the U.S.

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## First major winter storm pummels the Northeast



The first major snow storm of the season pummeled the U.S. and eventually covered much of the Northeast with heavy snow. When the storm hit the Northeast, it caused closures of schools and businesses, resulted in over 18,000 flight delays and cancellations, and downed trees caused over 80,000 power outages in the region. New York declared a state of emergency around Albany where the heaviest snow fell. This storm originally started as a bomb cyclone as it made landfall on the Oregon/California border. As the storm crossed the US, it dropped at least a foot of snow in 25 states, including over 4 feet of snow in California and Utah. As of Wednesday, the National Weather Service is reporting 39.2% of the conterminous U.S. is snow covered.

### Related:

[Winter storm dumped at least a foot of snow across 25 states](#) – USA Today on msn.COM

[Winter storm slams the Northeast, killing at least 8](#) – CBS News

[Boston schools close, N.Y. declares emergency amid winter storm](#) – UPI.com

[Hundreds of flights canceled and more than 5,000 delayed as winter storm disrupts post-Thanksgiving travel](#) – CNBC on MSN.com

[More than 1,000 NYC homes in the dark after winter storm: Con Edison](#) – New York Daily News

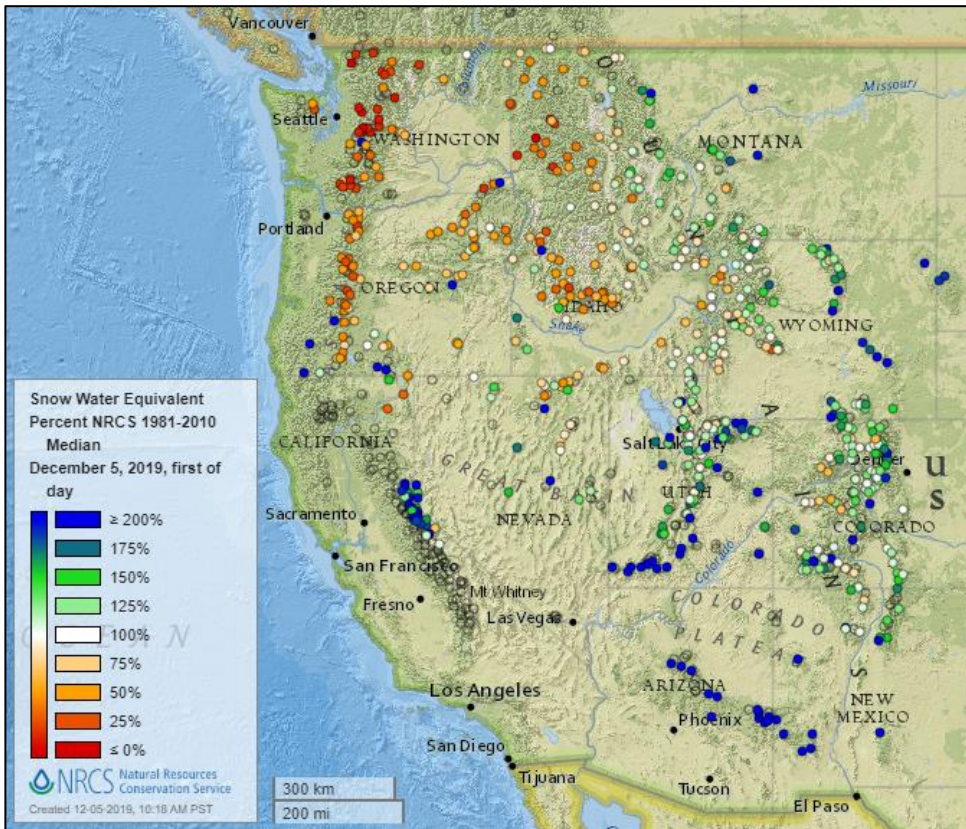
[Season's first snowfall breaks several December records](#) – WPRI12 (RI)

[Northeast digs out from monster storm: Over 2 feet of snow buries towns in New York, Massachusetts, Vermont](#) – Yahoo!

[Boston schools close, N.Y. declares emergency amid winter storm](#) – UPI.com

## Snow

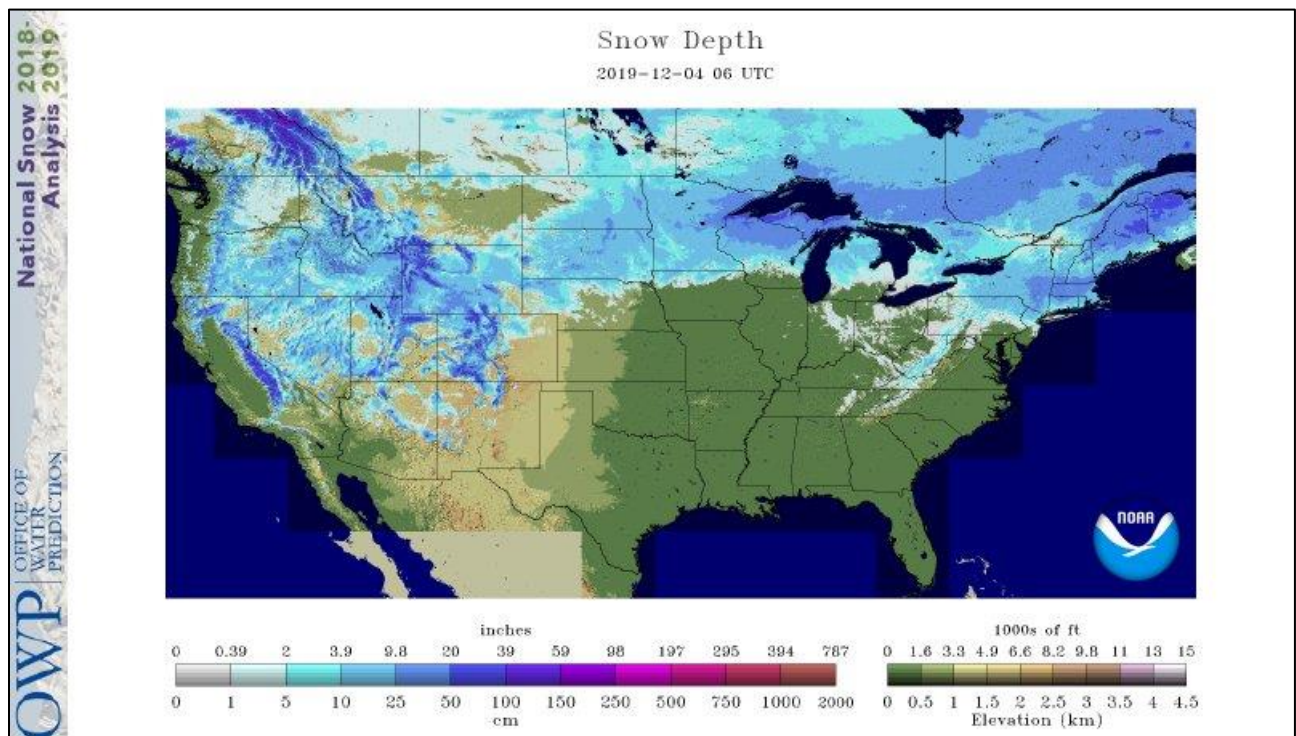
### Current Snow Water Equivalent, NRCS SNOTEL Network



[Snow water equivalent percent of median map](#)

**See also:**  
[Snow water equivalent values \(inches\) map](#)

### [Current Snow Depth](#), National Weather Service Snow Analysis





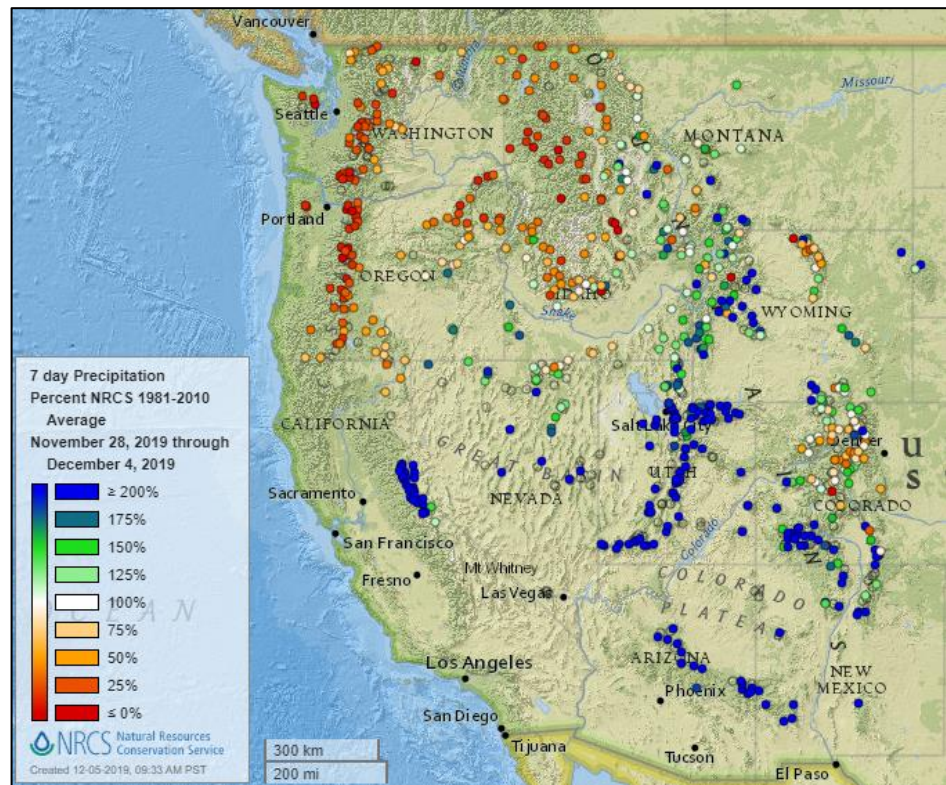
## Precipitation

### Last 7 Days, NRCS SNOTEL Network

[7-day precipitation percent of average map](#)

**See also:**

[7-day total precipitation values \(inches\) map](#)

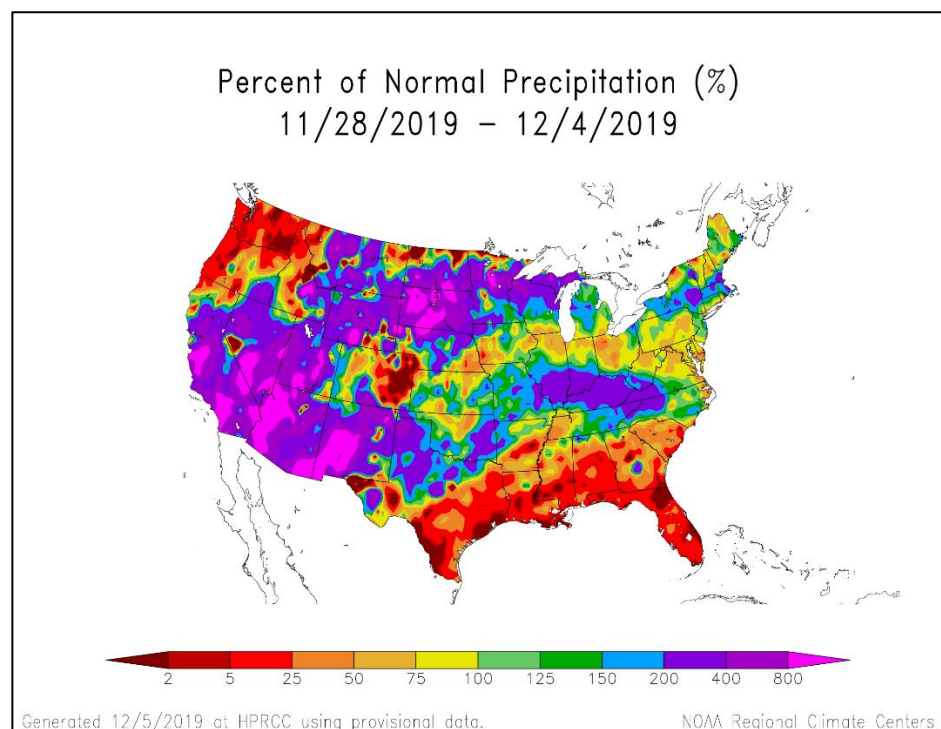


### Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

[7-day precipitation percent of normal map](#) for the continental U.S.

**See also:** [7-day total precipitation values \(inches\) map](#)

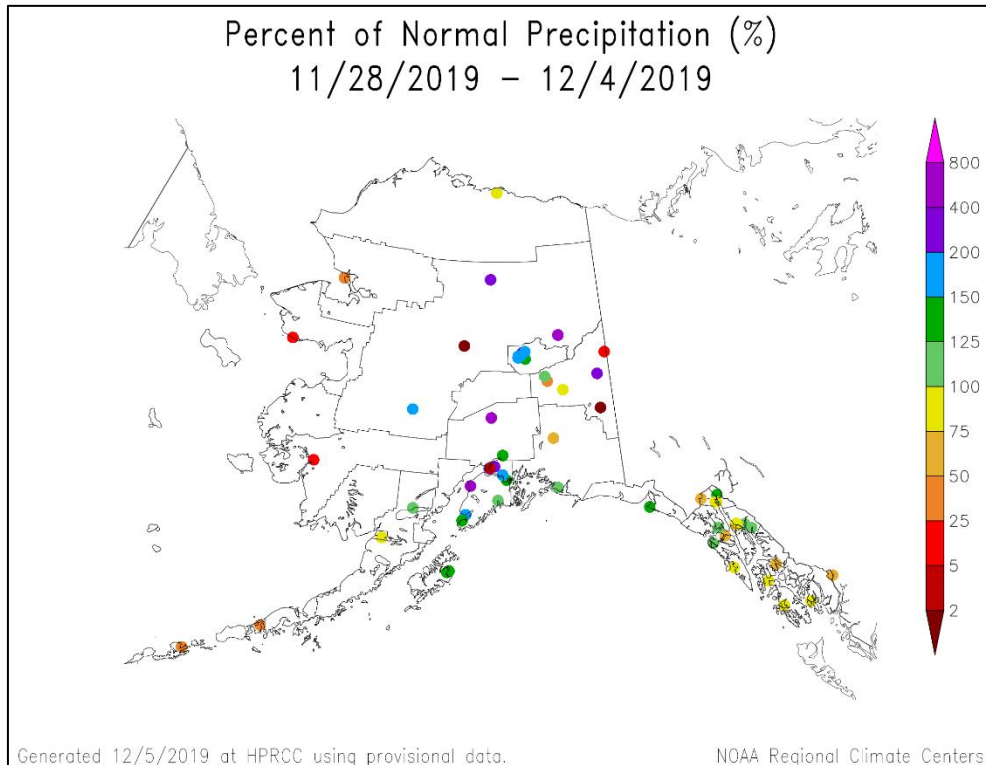


## Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

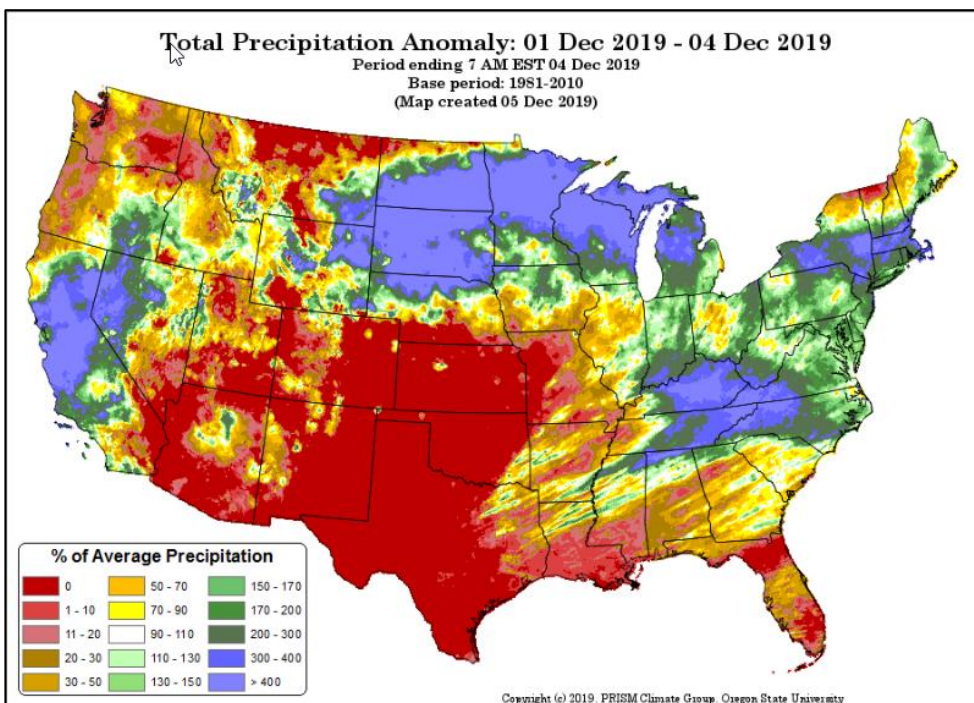
[7-day precipitation anomaly map](#) for Alaska.

**See also:**  
[7-day total precipitation values \(inches\) map](#)



## Month-to-Date, All Available Data Including SNOTEL and NWS Networks

Source: PRISM



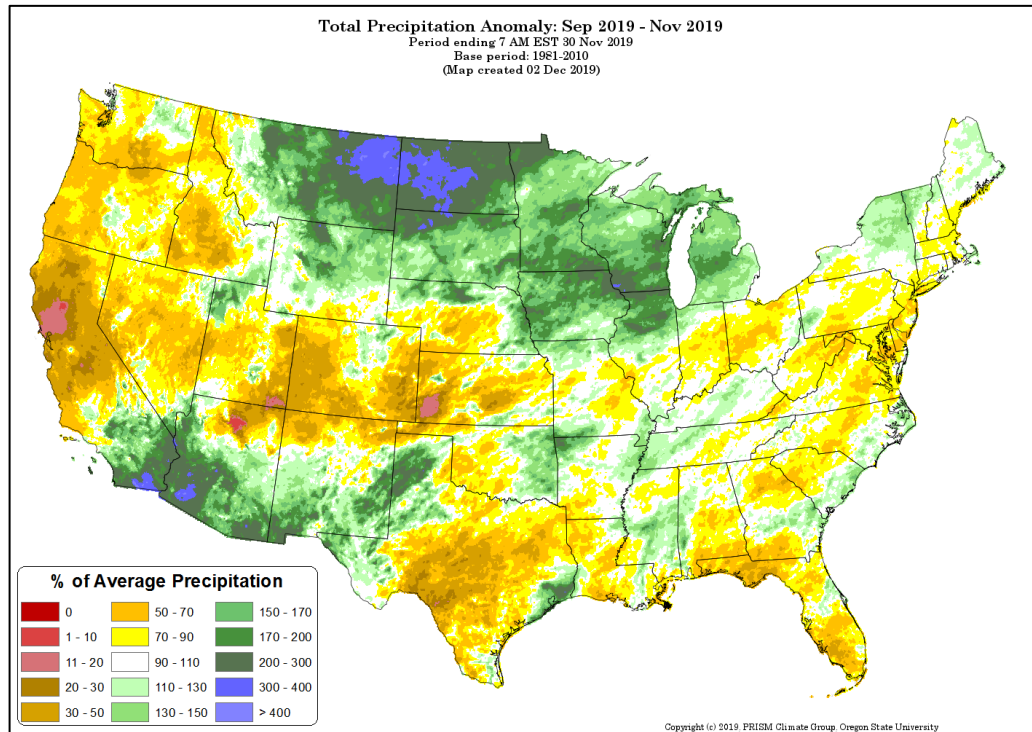
[Month-to-date national total precipitation percent of average map](#)



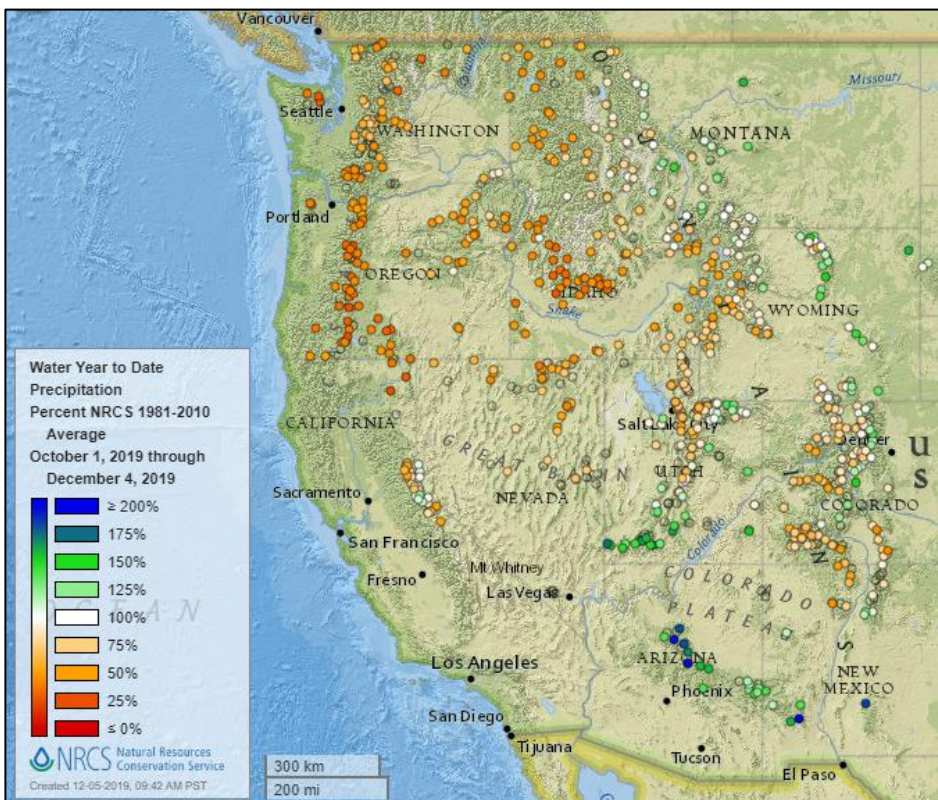
## Last 3 Months, All Available Data Including SNOTEL and NWS Networks

Source: PRISM

[September through November 2019 total precipitation percent of average map](#)



## Water Year-to-Date, NRCS SNOTEL Network



[2020 water year-to-date precipitation percent of average map](#)

**See also:**

[2020 water year-to-date precipitation values \(inches\) map](#)

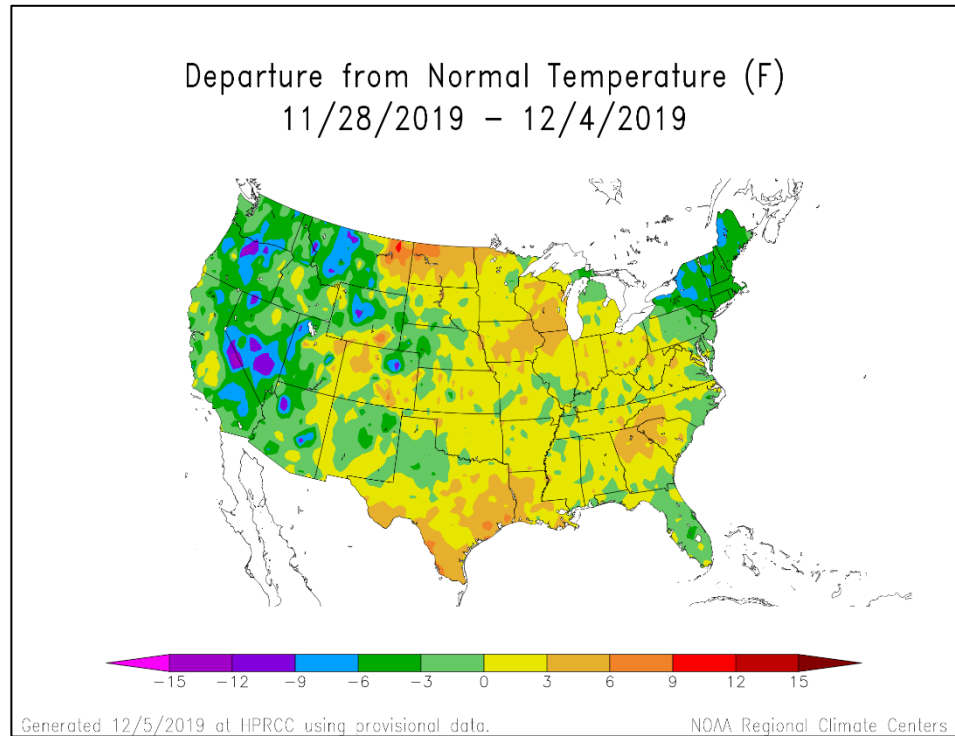
## Temperature

### Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

[7-day temperature anomaly map](#) for the contiguous U.S.

**See also:** [7-day temperature \(° F\) map](#)



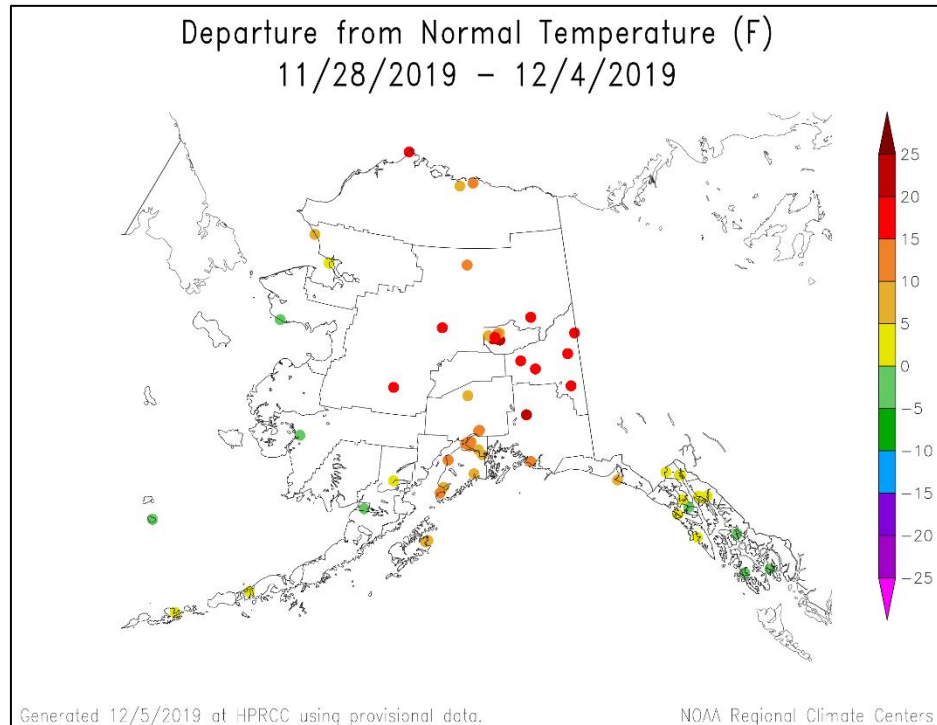
## Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

[7-day temperature anomaly map](#) for Alaska.

**See also:**

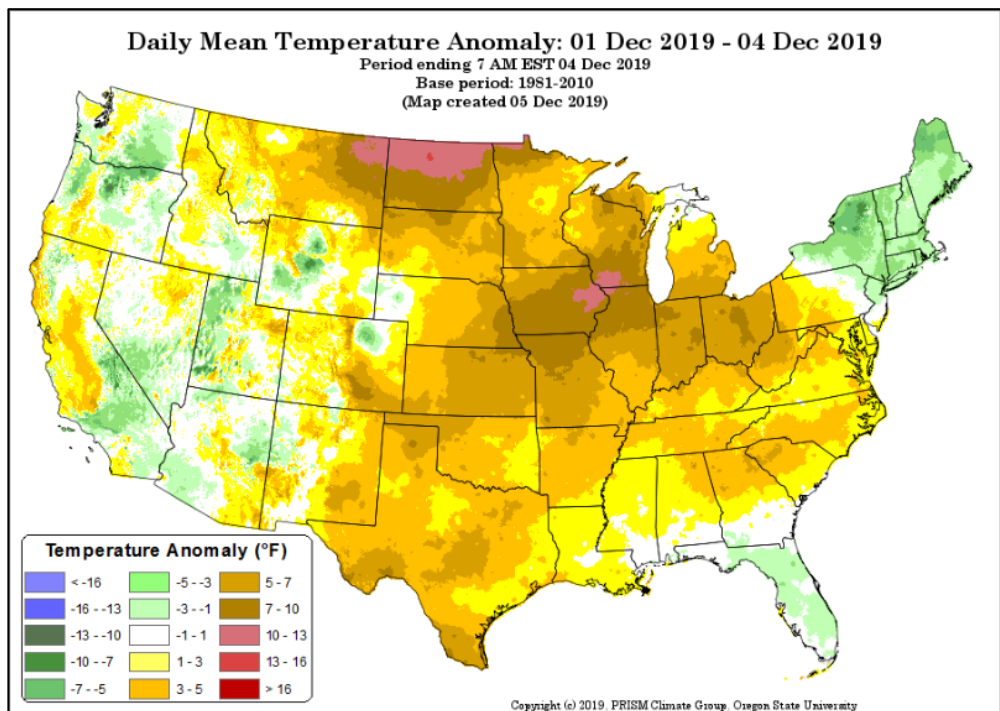
[7-day temperature \(°F\) map](#)



## Month-to-Date, All Available Data Including SNOTEL and NWS Networks

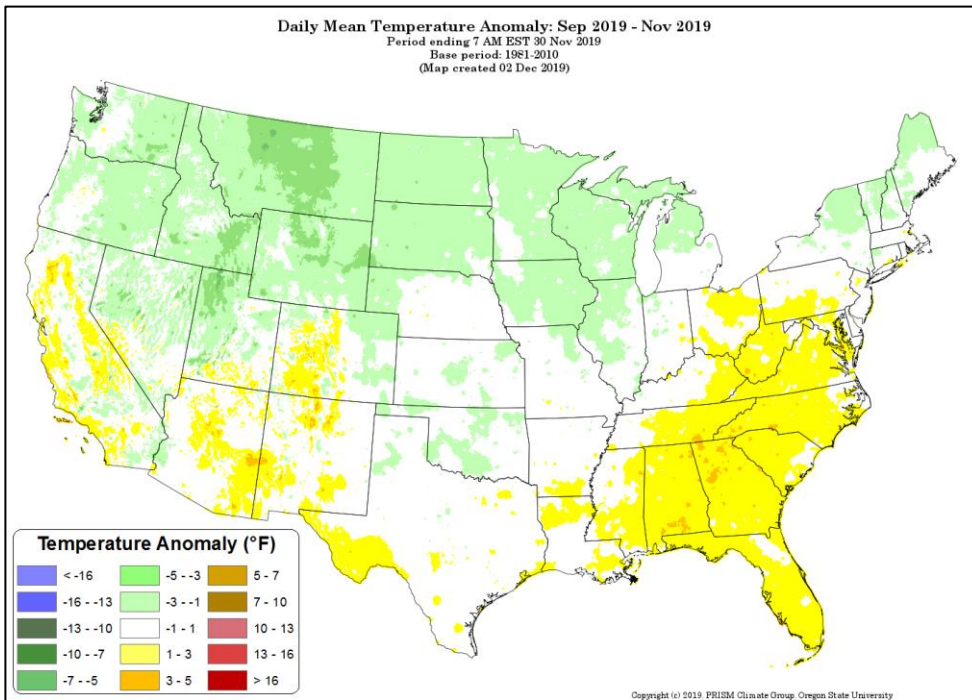
Source: PRISM

[Month-to-date national daily mean temperature anomaly map](#)



**Last 3 Months, All Available Data Including SNOTEL and NWS Networks**

Source: PRISM



[September through November 2019 daily mean temperature anomaly map](#)



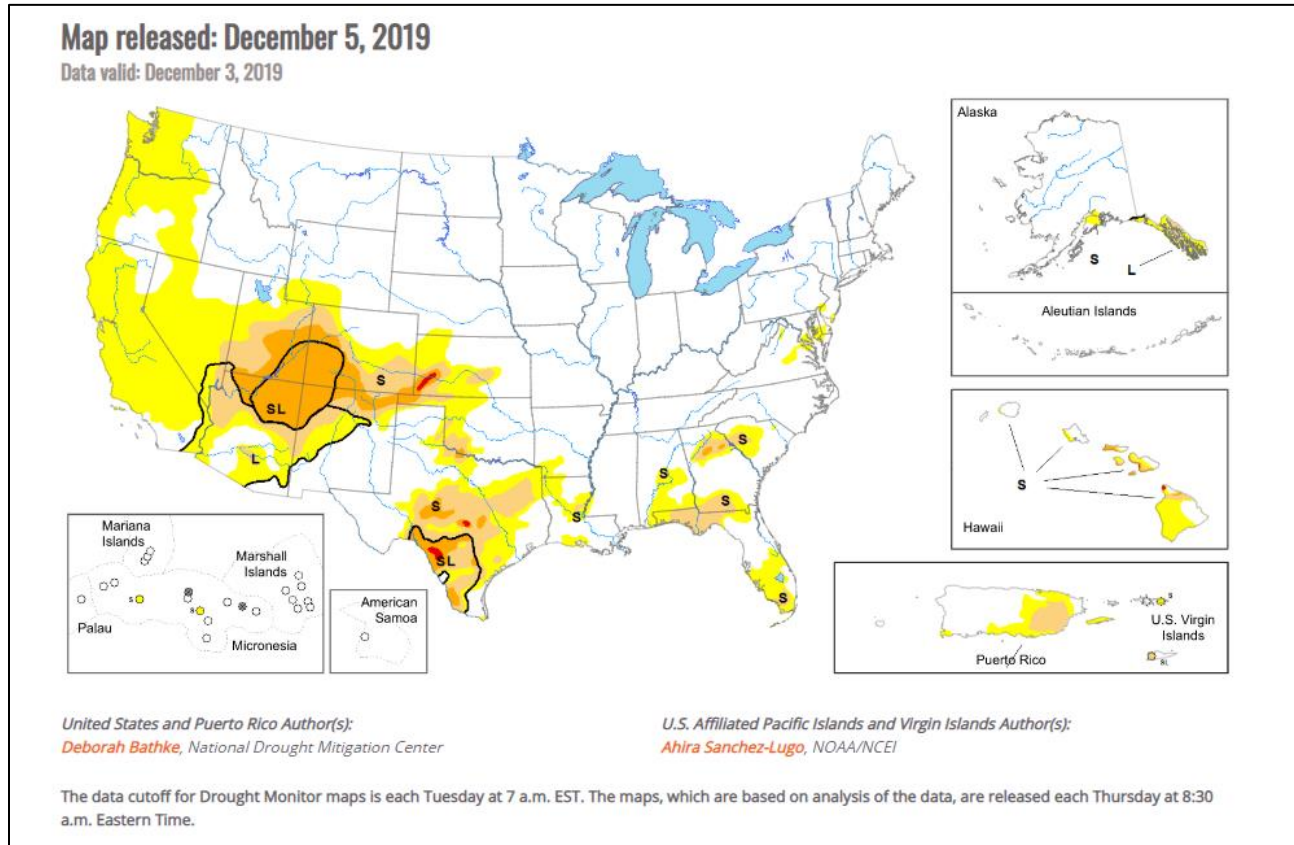
## Drought

### [U.S. Drought Monitor](#)

Source: National Drought Mitigation Center

### [U.S. Drought Portal](#)

Source: NOAA



### **Current [National Drought Summary](#), December 5, 2019**

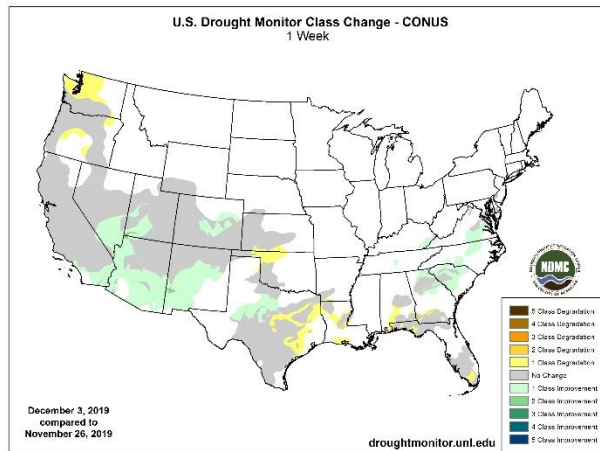
Source: National Drought Mitigation Center

“A tandem of winter storms impacted the country during the week, bringing cold temperatures, heavy snow, and strong winds to the mountainous areas of the west, northern Plains, upper Midwest, and Northeast. Lower elevations and latitudes dealt with a combination of weather impacts, including moderate to heavy rainfall in the Southwest, showers and thunderstorms across the South and lower Midwest, and freezing rain to the Mid-Atlantic regions. Another week of above-normal precipitation in the Southwest continued to alleviate the effects of a sub-par monsoon season. In contrast, relatively little precipitation fell in the Northwest, continuing dryness-related impacts such as low streamflow, dry soils, and poor snowpack. Farther east, rain continued to chip away at lingering dryness in the southern Ohio River Valley, Mid-Atlantic, and parts of the Southeast while rainfall amounts in Gulf Coast states were generally not enough to stave off developing dryness.”

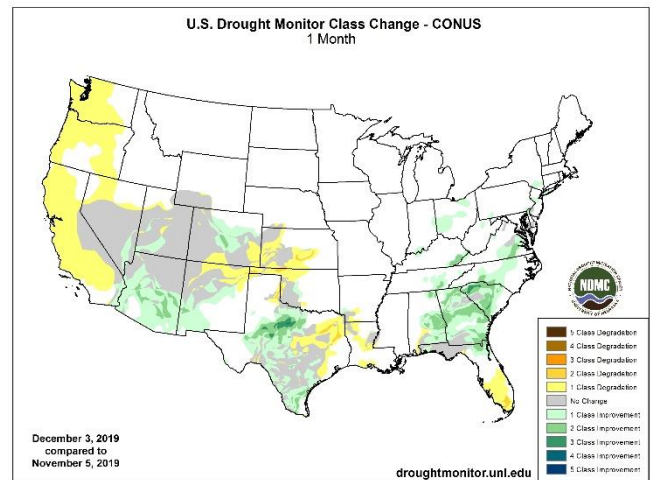
## Changes in Drought Monitor Categories over Time

Source: National Drought Mitigation Center

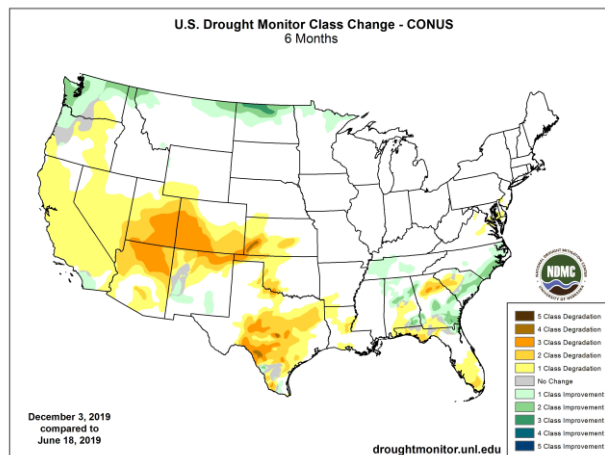
### 1 Week



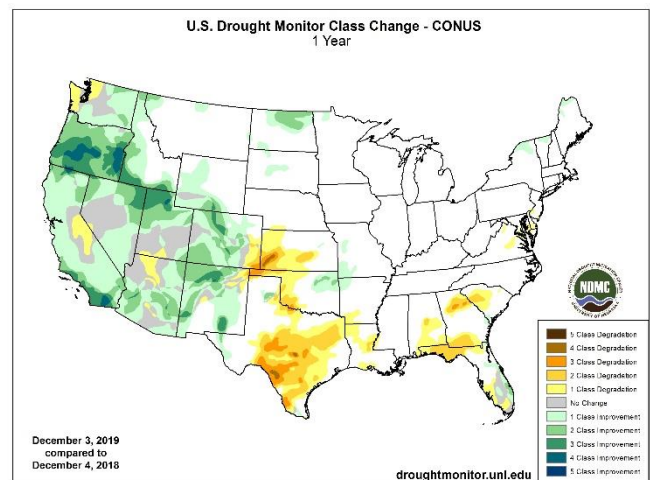
### 1 Month



### 6 Months



### 1 Year



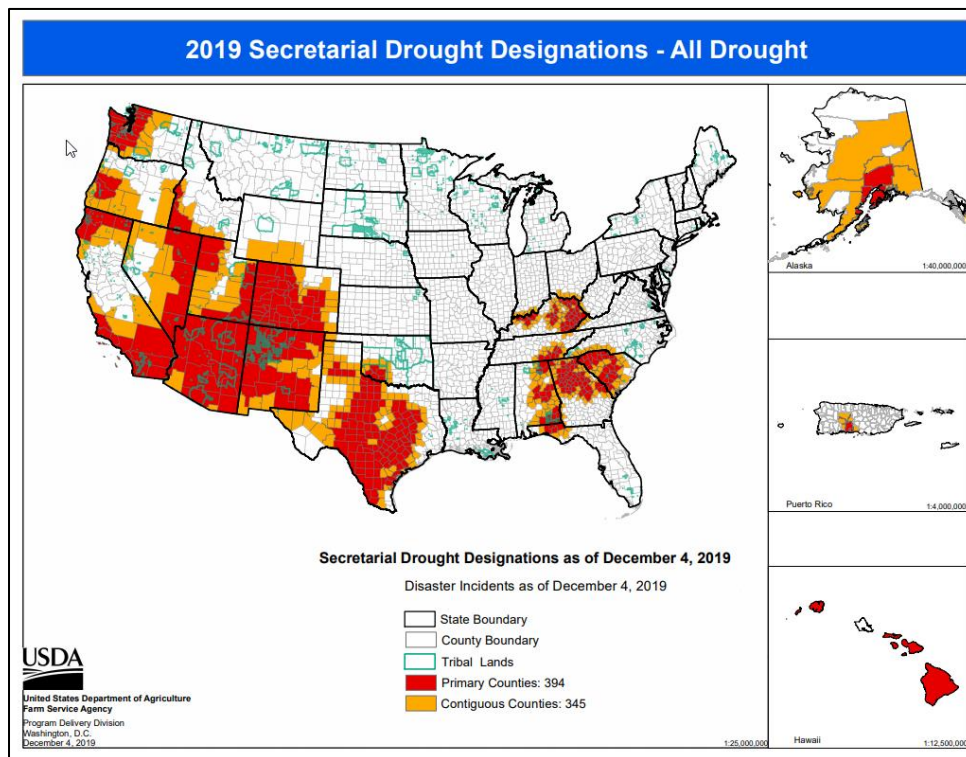
[Changes in drought conditions over the last 12 months for the contiguous U.S.](#)

## Highlighted Drought Resources

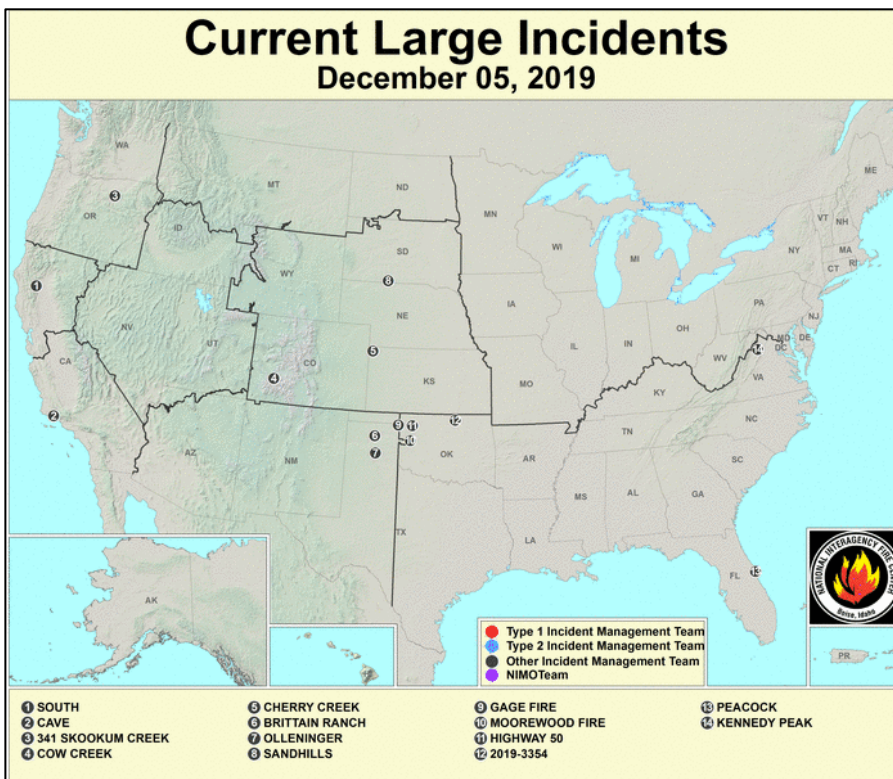
- [Drought Impact Reporter](#)
- [Quarterly Regional Climate Impacts and Outlook](#)
- [U.S. Drought Portal Indicators and Monitoring](#)
- [U.S. Population in Drought, Weekly Comparison](#)
- [USDA Disaster and Drought Information](#)

## Secretarial [Drought Designations](#)

Source: USDA Farm Service Agency



## Wildfires: [USDA Forest Service Active Fire Mapping](#)



### Highlighted Wildfire Resources

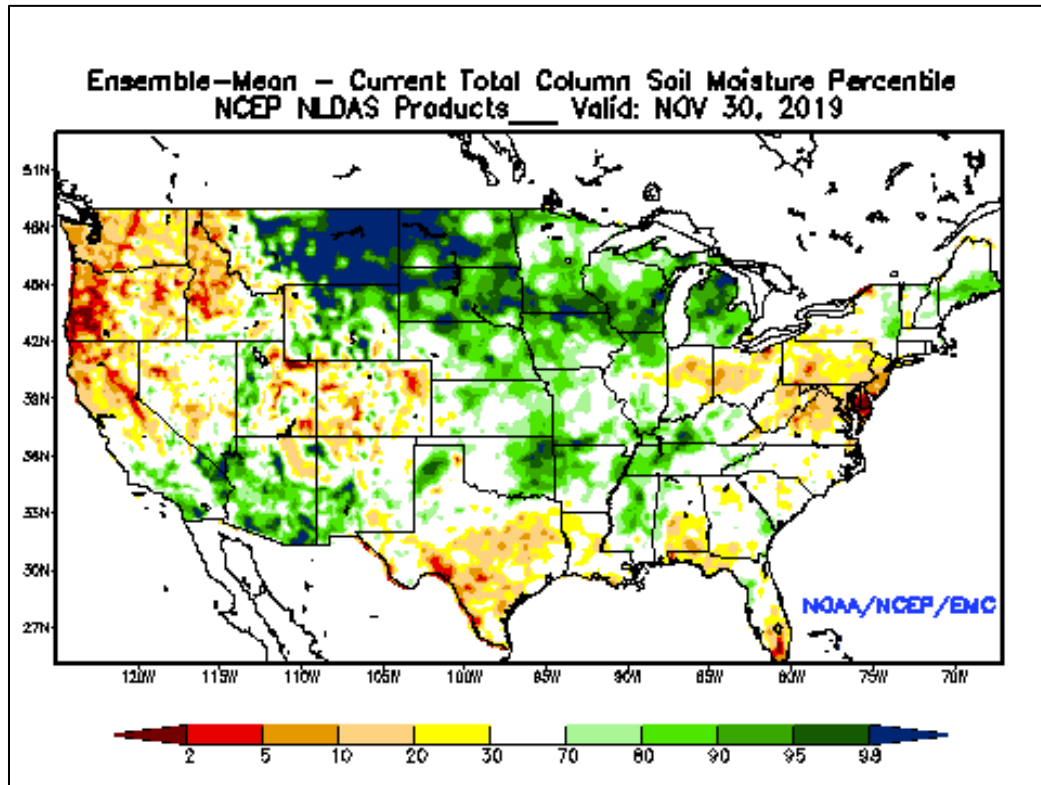
- [National Interagency Fire Center](#)
- [InciWeb Incident Information System](#)
- [Significant Wildland Fire Potential Outlook](#)



## Other Climatic and Water Supply Indicators

### Soil Moisture

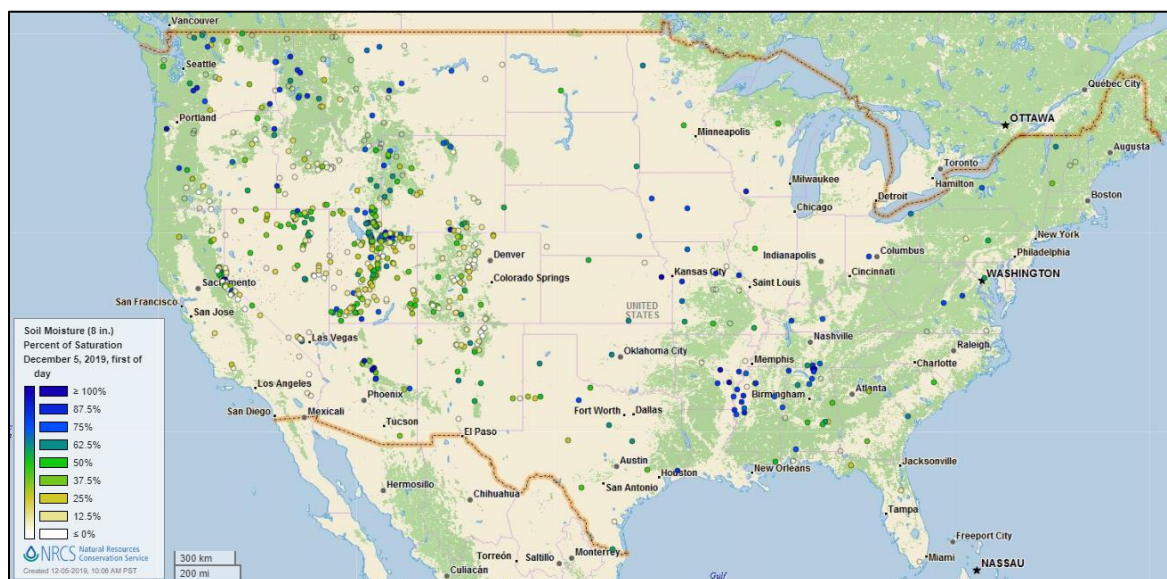
Source: NOAA National Centers for Environmental Prediction



[Modeled soil moisture percentiles](#) as of November 30, 2019

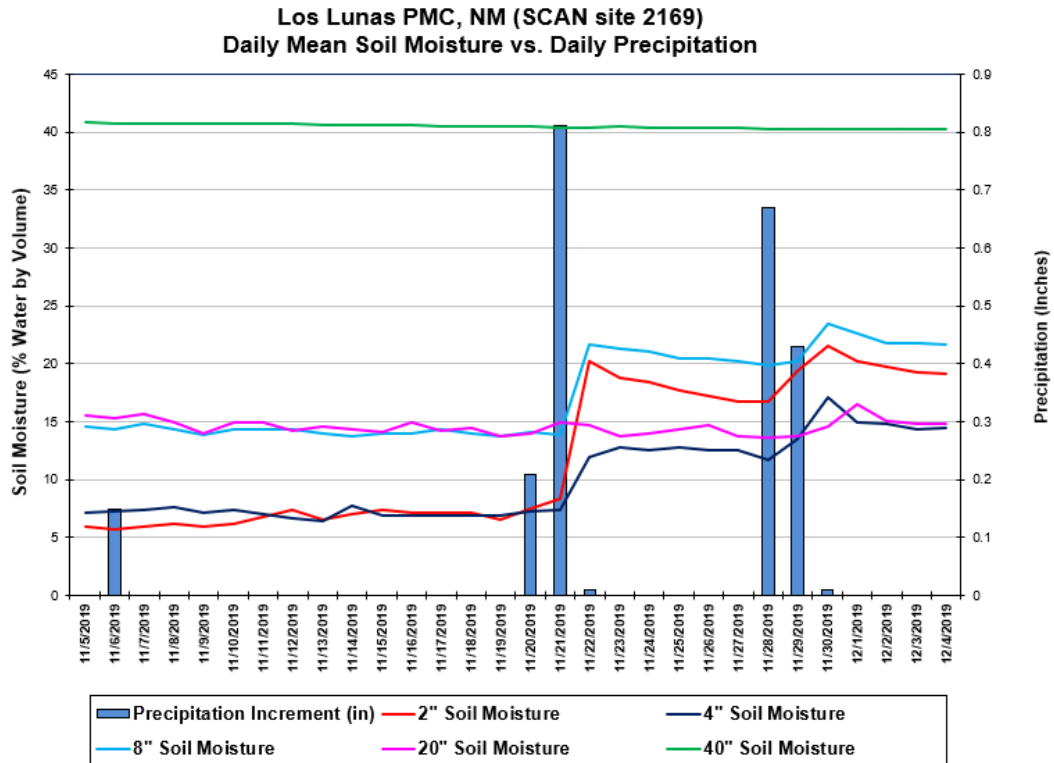
### Soil Moisture Percent of Saturation

Source: NRCS SNOTEL and [Soil Climate Analysis Network \(SCAN\)](#) <https://go.usa.gov/xy7hD>



## Soil Moisture Data

Source: NRCS [Soil Climate Analysis Network](#) (SCAN)



This chart shows the soil moisture and precipitation for the last 30 days at the [Los Lunas PMC SCAN site](#) in New Mexico. Precipitation on November 20-21 and November 28-29 increased soil moisture at the -2\", -4\", -8\", and -20\" sensors. The -40\" sensor is at saturation and did not respond to the events.

## Soil Moisture Data Portals

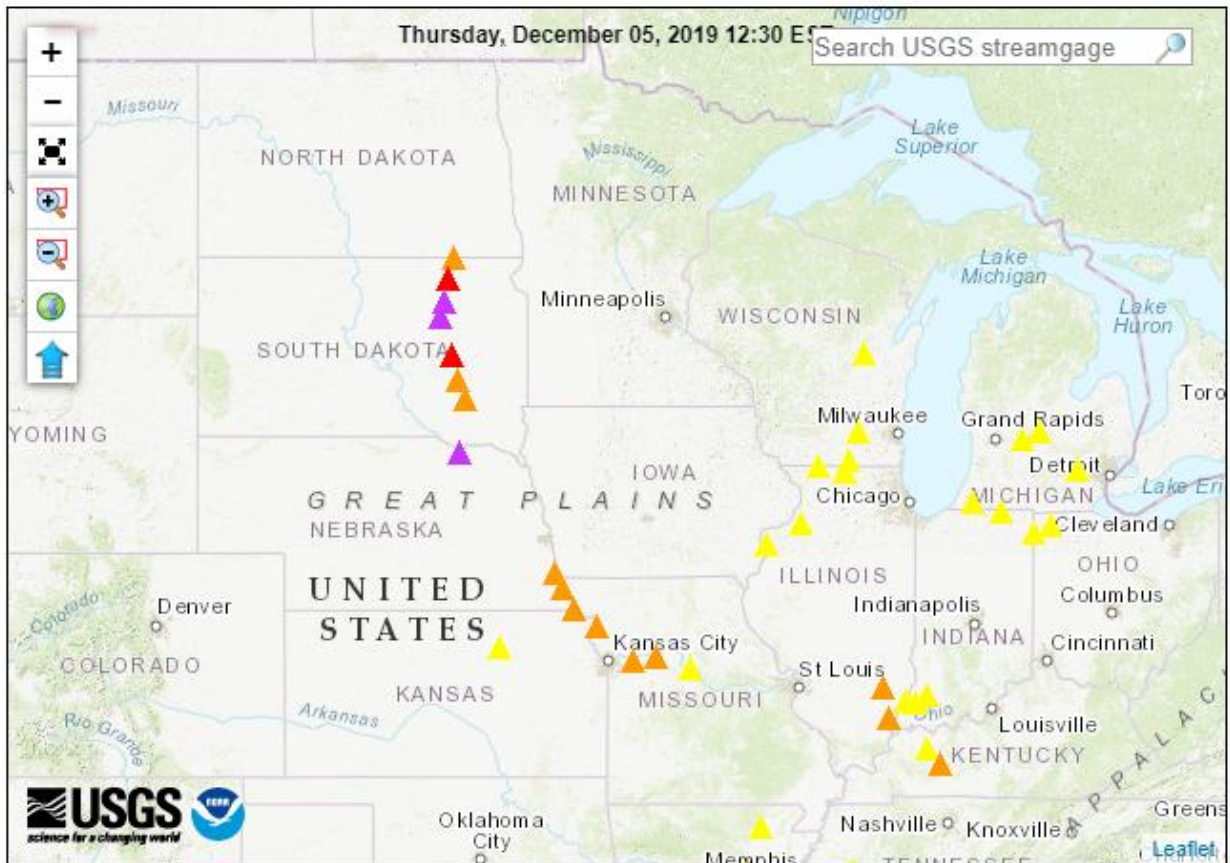
- [CRN Soil Moisture](#)
- [Texas A&M University North American Soil Moisture Database](#)
- [University of Washington Experimental Modeled Soil Moisture](#)

## Streamflow, Drought, Flood, and Runoff

Source: U.S. Geological Survey



### Map of flood and high flow conditions (18 in floods [major: 3, moderate: 2, minor: 13], 24 in near-flood)



Explanation - Percentile classes						
<95	95-98	>= 99	Above action stage	Above flood stage	Above moderate flood stage	Above major flood stage
<div>  Streamgage with flood stage                      Streamgage without flood stage                 </div>						

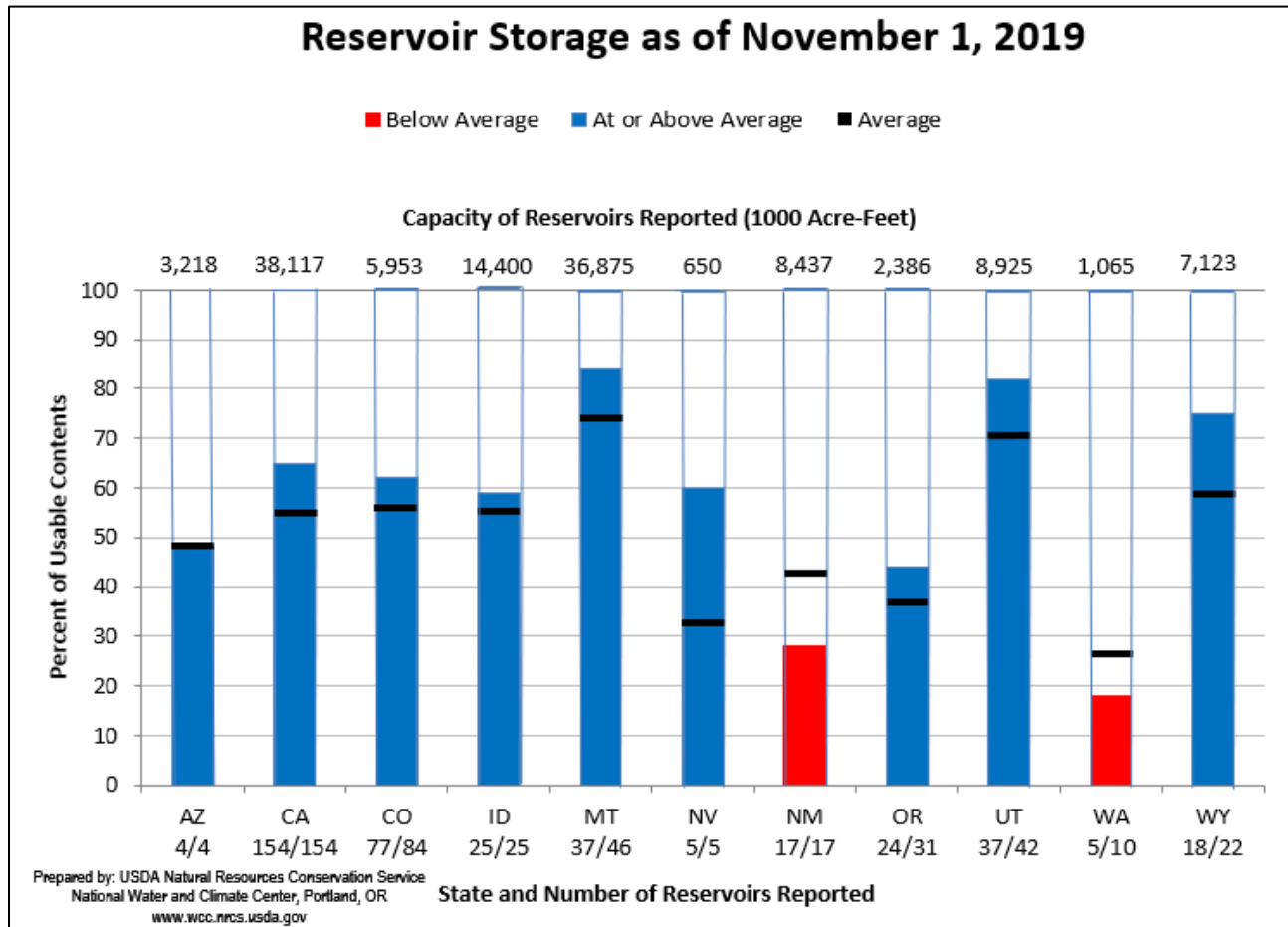
[WaterWatch: Streamflow, drought, flood, and runoff conditions](#)



## Reservoir Storage

### Western States Reservoir Storage

Source: NRCS National Water and Climate Center



November 1, 2019 Reservoir Storage: [Chart](#) | [Dataset](#)

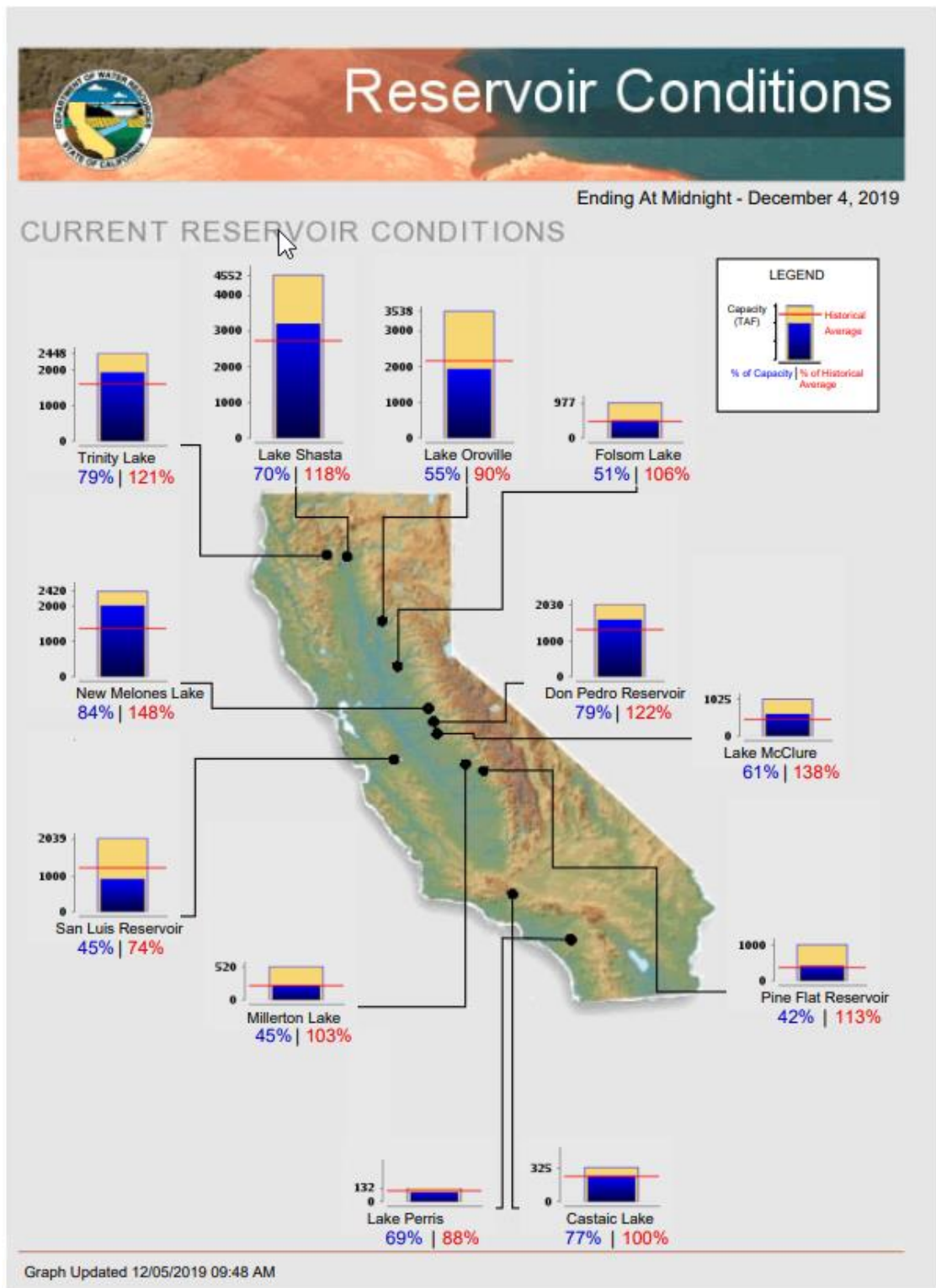
### Hydromet Tea Cup Reservoir Depictions

Source: U.S. Bureau of Reclamation

- [Upper Colorado](#)
- [Pacific Northwest/Snake/Columbia](#)
- [Sevier River Water, Utah](#)
- [Upper Missouri, Kansas, Oklahoma, Texas](#)

## Current California Reservoir Conditions

Source: California Department of Water Resources



[Current California Reservoir Conditions](#)

## Short- and Long-Range Outlooks

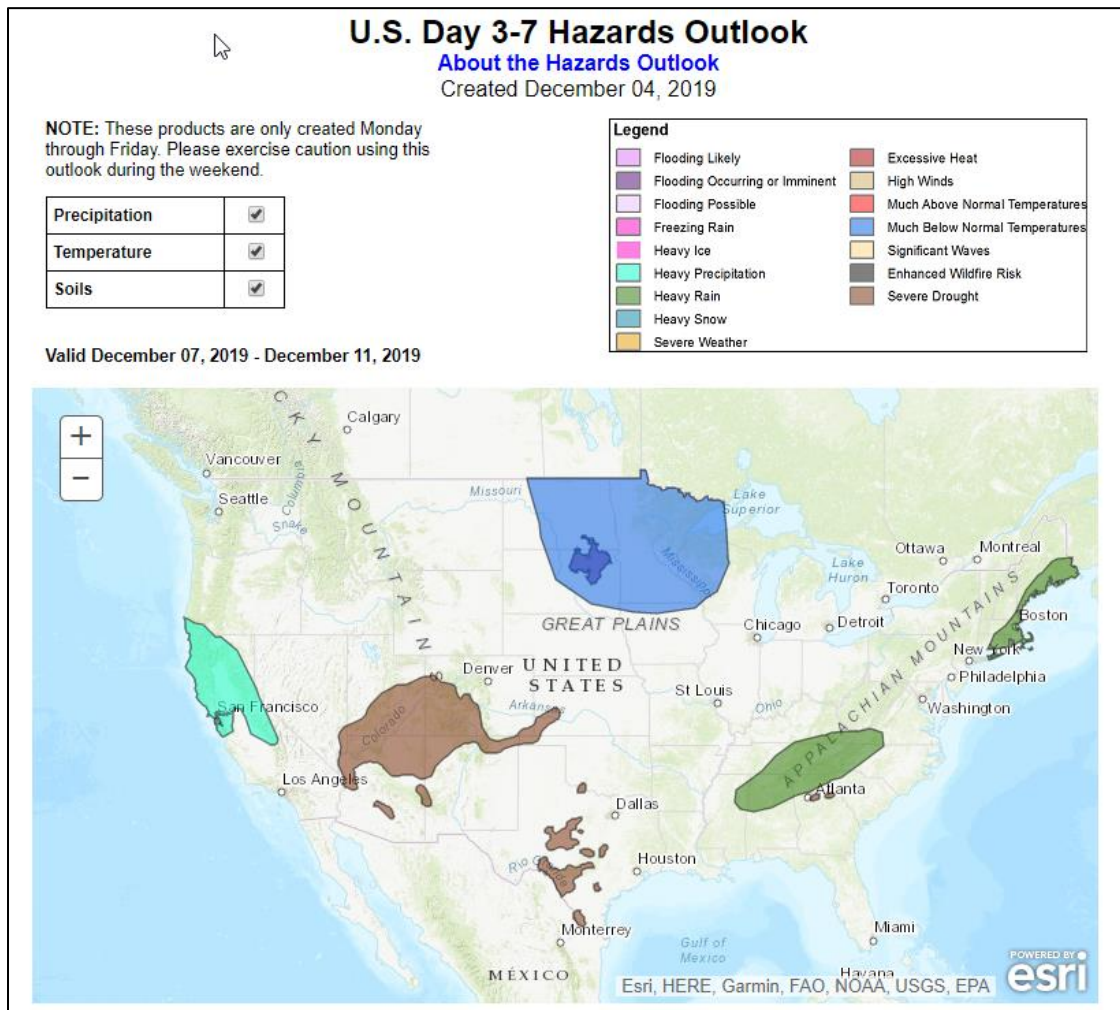
### Agricultural Weather Highlights

Author: Mark Brusberg, Chief Meteorologist, USDA/OCE/WAOB

**National Outlook, Thursday, December 5, 2019:** “Snow showers will linger through today in the Northeast, where an impressive, early-season snow storm has left early-morning depths at 15 inches in Manchester, New Hampshire, and 14 inches in Albany, New York. Later, late-week rain showers will affect the Southeast, while a new Pacific storm system will deliver rain and snow to the West Coast States. During the weekend, rain and snow showers will overspread the remainder of the western U.S. By early next week, an intensifying storm will result in a variety of weather hazards—including rain, snow, and wind—across the northern Plains, Midwest, and East. Sharply colder air will trail the storm system, starting across the northern Plains on Sunday and quickly overspreading other areas east of the Rockies during the first half of next week. The NWS 6- to 10-day outlook for December 10 – 14 calls for the likelihood of near- or below-normal temperatures in most areas from the Rockies to the Appalachians, while warmer-than-normal weather will prevail along the Atlantic Seaboard and across the Far West. Meanwhile, below normal precipitation in California and parts of the Southwest should contrast with wetter-than-normal weather across the remainder of the country.”

### Weather Hazards Outlook: [December 7 – December 11, 2019](#)

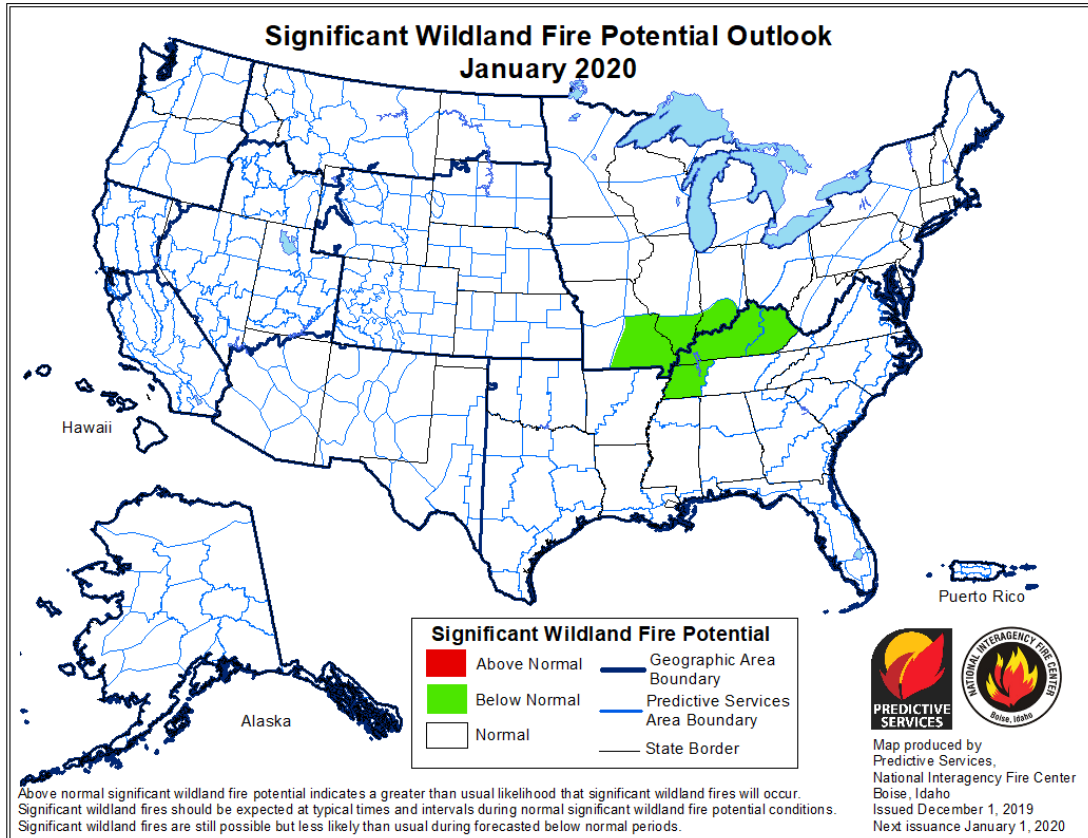
Source: NOAA Climate Prediction Center





## Significant Wildland [Fire Potential Outlook](#)

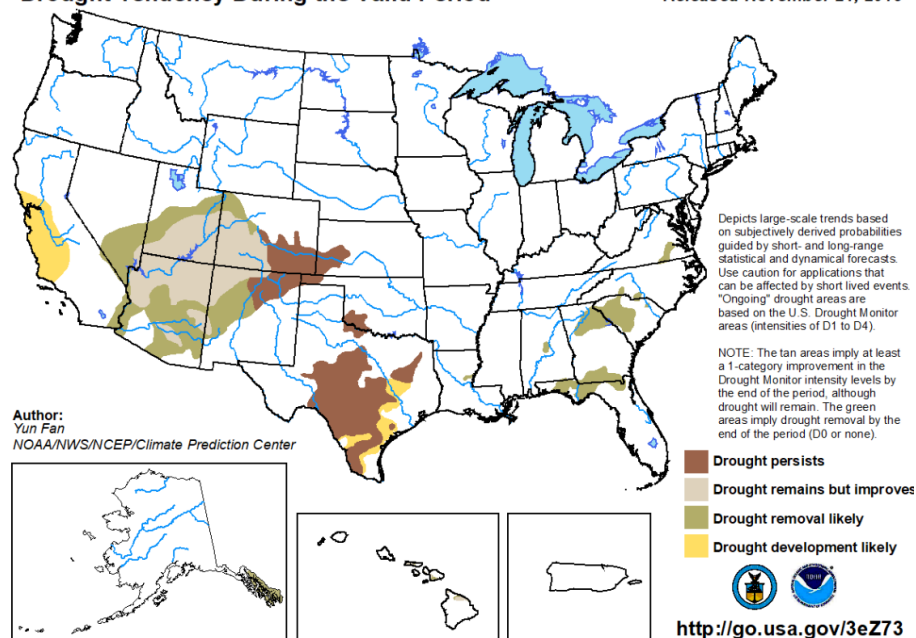
Source: National Interagency Fire Center



## Seasonal Drought Outlook: [November 21, 2019 – February 29, 2020](#)

Source: National Weather Service

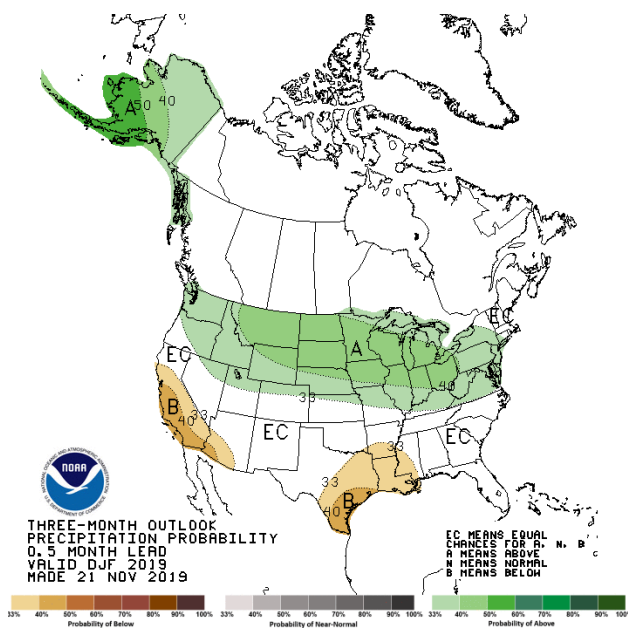
### **U.S. Seasonal Drought Outlook** Valid for November 21, 2019 - February 29, 2020 Drought Tendency During the Valid Period Released November 21, 2019



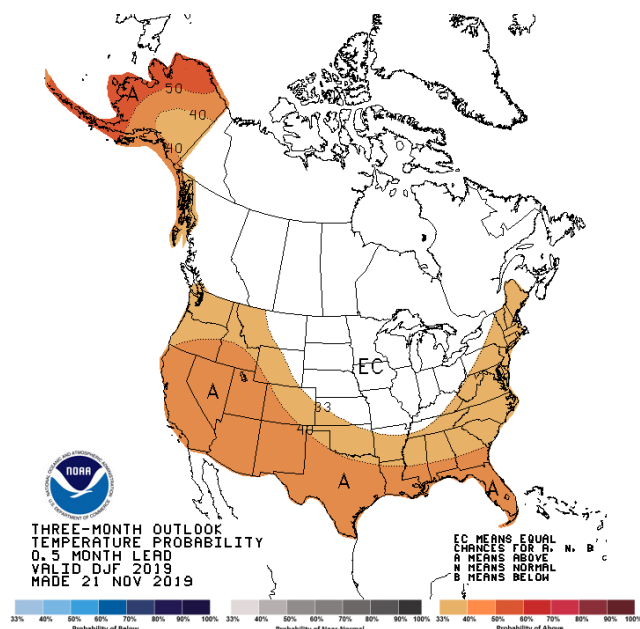
## Climate Prediction Center 3-Month Outlook

Source: National Weather Service

### [Precipitation](#)



### [Temperature](#)



[December-January-February \(DJF\) 2019/2020 precipitation and temperature outlook summaries](#)

## More Information

The NRCS [National Water and Climate Center](#) publishes this weekly report. We welcome your feedback. If you have questions or comments, please [contact us](#).